

Rectangular Co-ordinates from Dr. Brünnow's Elements, referred to the Apparent Equinox, April 17. By Professor Temple Chevallier.

$$x = [0.3970076] \sin (349^{\circ} 50' 44.1'' + u) + 0.0596252$$
$$y = [0.3747225] \sin (261^{\circ} 42' 17.5'' + u) + 0.3179134$$
$$z = [9.9515049] \sin (247^{\circ} 46' 19.5'' + u) + 0.1122336$$

Elements.

By M. E. Vogel, of the South Villa Observatory, Regent's Park, from the Observations at Bilk, April 17; Berlin, April 26; Liverpool, May 6.

M	=	306° 7' 18.33"	May 6, 0 ^h , Berlin M.T.
π		260 28 28.72	} Mean Equinox, 1852, Jan. 1.
Ω		125 45 24.14	
i		5 35 38.20	
φ		6 24 39.83	
Log a		0.3868301	
Log μ		2.9497615	
μ		932'' 74200	

These elements represent the middle observation exactly.

Ephemeris.

At 9^h 36^m Berlin Mean Time.

	1852.	R.A. h m s	Decl. ° ' "	Log Δ.
May	18.4	11 56 25	+ 8 34.2	0.21307
	19.4	56 40	30.3	
	20.4	56 57	26.2	
	21.4	57 15	22.0	
	22.4	57 35	17.6	0.22302
	23.4	57 56	13.0	
	24.4	58 18	8.2	
	25.4	58 41	+ 8 3.3	
	26.4	59 6	+ 7 58.2	0.23298
	27.4	11 59 33	53.0	
	28.4	12 0 2	47.6	
	29.4	0 32	42.0	
	30.4	1 3	36.3	0.24296
	31.4	1 35	30.4	
June	1.4	2 9	24.4	
	2.4	2 45	18.2	
	3.4	3 22	11.9	0.25291
	4.4	4 1	+ 7 5.5	
	5.4	12 4 40	+ 6 58.9	

Thetis—Psyche.

1852. June	R.A.			Decl.		Log Δ.
	h	m	s	°	'	
6 ^h 4	12	5	20	+6	52 ^h 2	
7 ^h 4	6	2		45 ^h 4		0 ^h 26281
8 ^h 4	6	45		38 ^h 4		
9 ^h 4	7	29		31 ^h 3		
10 ^h 4	8	14		24 ^h 1		
11 ^h 4	9	1		16 ^h 8		0 ^h 27263
12 ^h 4	9	49		9 ^h 3		
13 ^h 4	10	38		+6	1 ^h 7	
14 ^h 4	11	28		+5	54 ^h 0	
15 ^h 4	12	9		46 ^h 2		0 ^h 28128
16 ^h 4	13	11		38 ^h 3		
17 ^h 4	14	4		30 ^h 3		
18 ^h 4	14	59		22 ^h 2		
19 ^h 4	12	15	56	+5	14 ^h 0	0 ^h 29176

By M. G. Rümker, founded on the Observations at Bilk, April 20;
Berlin, April 28, and May 11.

M		313	25	1 ^h 43	May 16 ^h 5, 1852, Berlin M.T.
π		259	10	9 ^h 11	Mean Equinox, June 0 ^h 0, 1852.
Ω		125	3	4 ^h 63	
i		5	32	55 ^h 09	
φ		8	30	39 ^h 16	
Log α		0 ^h 3963126			
Log μ		2 ^h 9555377			

An ephemeris by M. G. Rümker, founded on the above elements, arrived after M. Vogel's ephemeris had been set up.

PSYCHE.

Dr. de Gasparis' last discovered planet has been named *Psyche*.

CAMBRIDGE.				Northumberland Equatoreal.				(Professor Challis.)						
		Green. M.T.			R.A.			Log $\frac{p}{P}$.	N.P.D.	Log $\frac{q}{P}$.	No. of	Star.		
18 ^h 2.		h	m	s	h	m	s		°	'	"	Comps.		
April	8	9	34	51.4	9	50	25.81	+7.933	76	15	56.0	-9.7940	4	a
		11	17	36.3			25.06	+8.426			56.7	9.8138	1	a
	10	10	10	0.1	50	14.51	+8.240		14	5.5	9.8000	7	a	
	12	8	25	2.0	50	9.45			12	41.6	9.7907		Meridian	
	13	8	21	4.4	9	50	7.69		76	11	58.7	-9.7906		—

The planet was very faint on the meridian on April 12. The star of comparison is H.C. 19589, and its adopted mean place for 1852^h0, deduced from two transits and one circle observation taken at Cambridge, is as follows:—

R.A. 9 ^h 54 ^m 8 ^s 55	N.P.D. 76 ^h 23' 19 ^h 7
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